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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554

In the Matter of

Amendment of Section 73.202(b)	)	
Table of Allotments	)	MM Docket No. _____
FM Broadcast Stations	)	RM - _____
(Nogales and Vail, Arizona)	)	

DOCKET FILE COPY ORIGINAL

To: Chief, Allocations Branch
Policy and Rules Division
Mass Media Bureau

PETITION FOR RULE MAKING

Desert West Air Ranchers Corporation ("Petitioner"), licensee of Station KZNO(FM), Nogales, Arizona, by its counsel, hereby requests the Commission amend the FM Table of Allotments to substitute Channel 253A at Vail, Arizona for Channel 252A at Nogales, Arizona and modify its permit accordingly. In support hereof, Petitioner states as follows:

I. VAIL, ARIZONA

A. TECHNICAL ANALYSIS

1. As demonstrated in the attached Technical Analysis Statement, Channel 253A can be allotted to Vail at coordinates 31° 55' 30" NL 110° 37' 30" WL consistent with Section 73.207 of the Commission's Rules. See Exhibit E-1. The proposal is short spaced to Mexican Station XHSAP(FM), Agua Prieta, Sonora, Mexico on Channel 253B. However, the proposal is in compliance with the United States -- Mexican Treaty of 1992 by providing contour protection to avoid interference with Mexican assignments and allocations. Petitioner proposes to utilize a directional antenna to avoid overlap and has provided the appropriate showing in the attached Technical Analysis to demonstrate compliance. See Exhibit E-3, E-4. The Technical Analysis also

demonstrates that a 70 dBu signal can be provided from the proposed reference point over all of Vail without shadowing. See Exhibits E-2, E-4.

2. The proposed 60 dBu contour will provide service to 355,449 persons in a 2,863 sq. kilometer area. The existing KZNO facility provides service to 21,219 persons in a 309 sq. kilometer area, resulting in a net gain in population of 234,230 persons and a net gain area of 2,554 sq. kilometer. See Exhibit E-5. In addition the loss area will be served by more than five aural services. The loss area is almost entirely comprised of the city of Nogales, which is located on the U.S. Mexican border. Over 92% of Nogales' residents are Mexican Americans. See Exhibit A. These residents receive service from two local Nogales FM Stations KOFH(FM) and KNOG(FM) and seven FM and five AM stations licensed to the adjacent community of Nogales, Mexico. A listing of the broadcast stations which provide service to the residents within the loss area is contained in Exhibit E-6. Thus, the population within the loss area are well served by the numerous stations located nearby. The Commission should consider the service provided by the Mexican stations to the Mexican-American populations residing in the loss area because these are the stations that the residents listen to on a daily basis. In fact there are so many stations in this area, there may be no spectrum currently available for any new AM or FM broadcast stations.

3. In any event, pursuant to past Commission case law, the Commission generally favors a Priority 3 proposal (here a first local service to Vail), where no white or gray areas would be created. See Homestead and North Miami Beach, Florida 10 FCC Rcd 13149 (1995); Earle, Pocahantes and Wilson, Arkansas and Como and New Albany, Mississippi 10 FCC Rcd 8270 (1995) and Huntsville and Willis, Texas, 10 FCC Rcd 3329 (1995). Even excluding the Mexican stations, the two local Nogales stations adequately cover all of the loss area.

B. CHANGE IN COMMUNITY OF LICENSE

4. Petitioner desires to change its community of license from Nogales to Vail, Arizona to provide a first local service under the prerequisites set forth in Amendment of the Commission's Rules Regarding Modification of FM and TV Authorizations to Specify a New Community of License, 4 FCC Rcd 3870 (1989), recons. granted in part, 5 FCC Rcd 7094 (1990). First, the proposed use of Channel 253A at Vail is mutually exclusive with the current use of Channel 252A at Nogales. Second, the Vail proposal is preferred under the Commission's priorities because Vail would receive a first local service (Priority 3) while Nogales would retain two local services -- KNOG(FM) and KOFH(FM). See Revision of FM Assignment Policies and Procedures, 90 FCC 2d 88 (1982). As a result, Nogales would continue to receive local service.

5. Vail is an unincorporated community which is listed as a proposed census designated places for the 2000 census. See attached Exhibit B from the Census Statistical Areas Committee, A Subcommittee of the Pima Association of Governments Population Technical Advisory Committee. Vail is listed in the Rand McNally Commercial Atlas and Marketing Guide with a population of 550 persons. However, information provided by the United States Post Office attributes 622 boxes and 1,966 rural route deliveries for zip code 85641, Vail, Arizona. See Exhibit C. In a recent news article from the Arizona Daily Star, Vail is described as "the fastest growing district in Pima County. In the next four years, its high school population is expected to increase 56 percent to about 1,500 persons." See Exhibit C. This school population figure is consistent with a later article in the same newspaper which currently attributes 1000 students to Vail. Based on these figures, the U.S. Census Population for Vail's zip code (85641) of 3,124 persons appears accurate based on the number of high school students.

6. Vail has its own Unified School District with two Elementary schools and a middle school. The aforementioned news articles discuss the approval of a high school for Vail. Vail's residents are also served by the Vail Water Company, two Volunteer Fire Department, two electric company services, an American Legion office and numerous businesses identified by the name of the community such as Vail Homes and Building Co., Inc., Vail Feed Stores, Vail Steakhouse, and Vail Ranch. See Exhibit C. Based on the foregoing, there should be little doubt as to Vail's community status, growth and need for its own radio station. See e.g., Gualala, California, 5 FCC Rcd 6268 (1990).

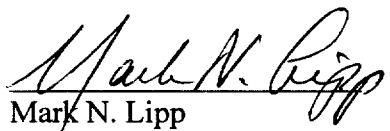
7. Should the Commission approve the reallotment of Channel 253A to Vail, Arizona, Petitioner will apply for the channel and construct the facility if authorized to do so.

C. CONCLUSION

8. The reallotment of Channel 253A to Vail, Arizona is in the public interest because Vail will receive a first local service and the gain in area and population are substantial. On the other hand, the residents of Nogales will continue to be served by numerous radio stations.

Respectfully Submitted,

DESERT WEST AIR RANCHERS CORPORATION

By: 

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Its Counsel

November 1, 1999

TECHNICAL ANALYSIS
KZNO COMMUNITY OF LICENSE CHANGE
VAIL, ARIZONA

Desert West Air Ranchers Corporation ("Desert"), licensee of FM Station KZNO, Nogales, Arizona, proposes to change the Community of License of FM Station KZNO from Nogales, Arizona to Vail, Arizona. KZNO would change from its current channel 252 to its first adjacent channel 253 and would remain a Class A Station domestically and a Class AA with respect to Mexico. The proposed reference point for KZNO Channel 253A at Vail is fully spaced to all domestic allocations and facilities except the mutual exclusively with the current facilities of KZNO. With regards to the allocations and facilities in Mexico, the proposed facility is short spaced with Channel 253 in Agua Prieta, Sonora, Mexico; however, contour protection is provided to that facility in accordance with the 1992 FM Broadcasting Treaty between the United Mexican States and the United States (the "US/Mexican Treaty"). The following is the technical analysis for the proposal.

1. KZNO AT VAIL, ARIZONA

KZNO is currently licensed to Nogales, Arizona as a Class A FM on Channel 252A operating from the Mount Benedict Electronic Site near Nogales, Arizona. Desert proposes to change the KZNO Community of License to Vail, Arizona at the special reference point coordinates of:

31-55-30 N 110-37-30 W

Attached as EXHIBIT E1 is a channel spacing study showing the proposed KZNO special reference point for KZNO as a Class A FM at Vail, Arizona. Other than mutual exclusivity with the current KZNO facilities, the study shows that the proposal is fully spaced to all existing and proposed domestic allocations and facilities. With regards to the allocations and facilities in Mexico, the proposed facility is short spaced with Channel 253 in Agua Prieta, Sonora, Mexico; however, contour protection is provided to that facility in accordance with the US/Mexican Treaty. That short spacing will be discussed in the next section.

Attached as EXHIBIT E2 is the principal community and service contour calculations for KZNO operating with Class A facilities of 6.0 KW at 100 meters utilizing a directional antenna (attached as EXHIBIT E3) from the special reference point. Included is a special 334 degree radial which transects the proposed community of license, Vail, Arizona. The directional antenna is in full compliance with the applicable limitations in both the FCC Rules and Regulations as well as the US/Mexican Treaty.

Attached as EXHIBIT E4 is the principal community and service contour map of KZNO operating with the Class A facilities of 6.0 KW at 100 meters utilizing a directional antenna from the special reference point. The map shows that such a facility clearly produces a city grade

contour (70 dBu) over Vail. The map also contains shadowing information which shows that the facility has line of sight over the entire community of Vail. It should be noted that along the 124 degree radial towards the Mexican facility at Agua Prieta, the contour map differs slightly from the calculations in Section 2 below due to the interpolation method used under the US/Mexican Treaty. It should also be noted that facilities less than proposed can also provide city service to the community.

Attached as EXHIBIT E5 is a gain/loss map showing the proposed 60 dBu coverage area of KZNO at Vail and the currently authorized 60 dBu coverage area of KZNO at Nogales, Arizona. The 1990 population within the proposed KZNO 60 dBu coverage area of 2,863 square kilometers at Vail is 355,449 persons. The 1990 population within the currently authorized KZNO 60 dBu coverage area of 309 square kilometers at Nogales, Arizona is 21,219 persons.

Attached as EXHIBIT E6 is a list of the remaining broadcast signals which provide service to Nogales, Arizona and the loss area. No white or gray area is created by the removal of KZNO from Nogales nor is the community under served.

2. **INTERNATIONAL TREATIES** With respect to international treaties, the proposal is short spaced with the Mexican FM station XHSAPF and its associated allocation 253B, Agua Prieta, Sonora, Mexico. The US/Mexican Treaty allows for such short spaced proposals as long as equivalent protection is afforded. Attached hereto as EXHIBIT E7 is an engineering study, conducted pursuant to the procedures in the US/Mexican Treaty, demonstrating that equivalent protection is provided, with respect to the Mexican facility and allocation, by the limitation of the proposed facilities of KZNO to an ERP of 0.800 KW at 6.9 meters (30 meters used) HAAT towards the Mexican facility.

Note: All exhibits, contours, spacing studies and population estimates were prepared in accordance with FCC rules and regulations using RadioSoft FMR software and SoftWright Terrain Analysis Package software.

EXHIBIT E1

KZNO FM
CHANNEL 253AA
VAIL, ARIZONA

MAPFM search of channel 253AA (98.5 MHz), at N. 31 55 30, W. 110 37 30.
CLASS AA (6.0 KW)

Searching Channel 253AA (98.5 MHz):

CALL	CITY	ST	CHN	CL	S	DIST	SEPN	BRNG	CLEARANCE
KUATTV	TUCSON	AZ	6	TV	L	55.0	22.0	351.1°	33.0 1106 35.5
NEW	Mammoth	AZ	201	C1	A	55.0	21.0	351.1°	34.0
KZNO	Nogales	AZ	252	A	L	66.1	72.0	205.7°	-5.9
ALC	Marana	AZ	252	A	U	72.9	72.0	323.4°	0.9
KOHT	Marana	AZ	252	A	L	72.9	72.0	323.4°	0.9
ALC	Nogales	AZ	252	A	U	66.1	72.0	205.7°	-5.9
KWCXFM	Willcox	AZ	252	A	L	83.8	72.0	63.1°	11.8
XHSAPF	Agua Prieta	SO	253	B		122.0	178.0	124.0°	-56.0
ALC	Agua Prieta	SO	253	B		122.0	178.0	124.0°	-56.0
ALC	Nogales	AZ	256	A	U	70.5	31.0	203.0°	39.5
KOFH	Nogales	AZ	256	A	C	66.7	31.0	206.9°	35.7

EXHIBIT E2

KZNO
VAIL, ARIZONA
CHANNEL 253A

COMPUTED DISTANCE TO CONTOURS (PART 73)

Transmitter Latitude: 31:55:30.0N Longitude: 110:37:30.0W
Transmitter center of radiation: 1350.0 m AMSL (70.00 m AGL)
Power: 6.000 kW Channel 253A
Directional Antenna: Shively 6810 Directional
Antenna orientation: .0 deg

Azimuth (Deg T)	HAAT (m)	Horizontal Relative Field	Equiv Power	Rough Correct	f(50,50) 60.0 dBu (km)	f(50,50) 70.0 dBu (km)
.00	242.06	1.000	6.000	.000	41.82	25.04
45.00	181.72	1.000	6.000	.000	37.35	21.93
90.00	85.00	.725	3.154	.000	22.65	12.58
135.00	-18.27*	.409	1.004	.000	10.24	5.68
180.00	-70.84*	1.000	6.000	.000	15.88	8.99
225.00	-26.64*	1.000	6.000	.000	15.88	8.99
270.00	131.35	1.000	6.000	.000	31.96	18.73
315.00	276.30	1.000	6.000	.000	43.99	26.62
334.00	290.12	1.000	6.000	.000	44.86	27.25

100.08 m Cardinal Average

EXHIBIT E3

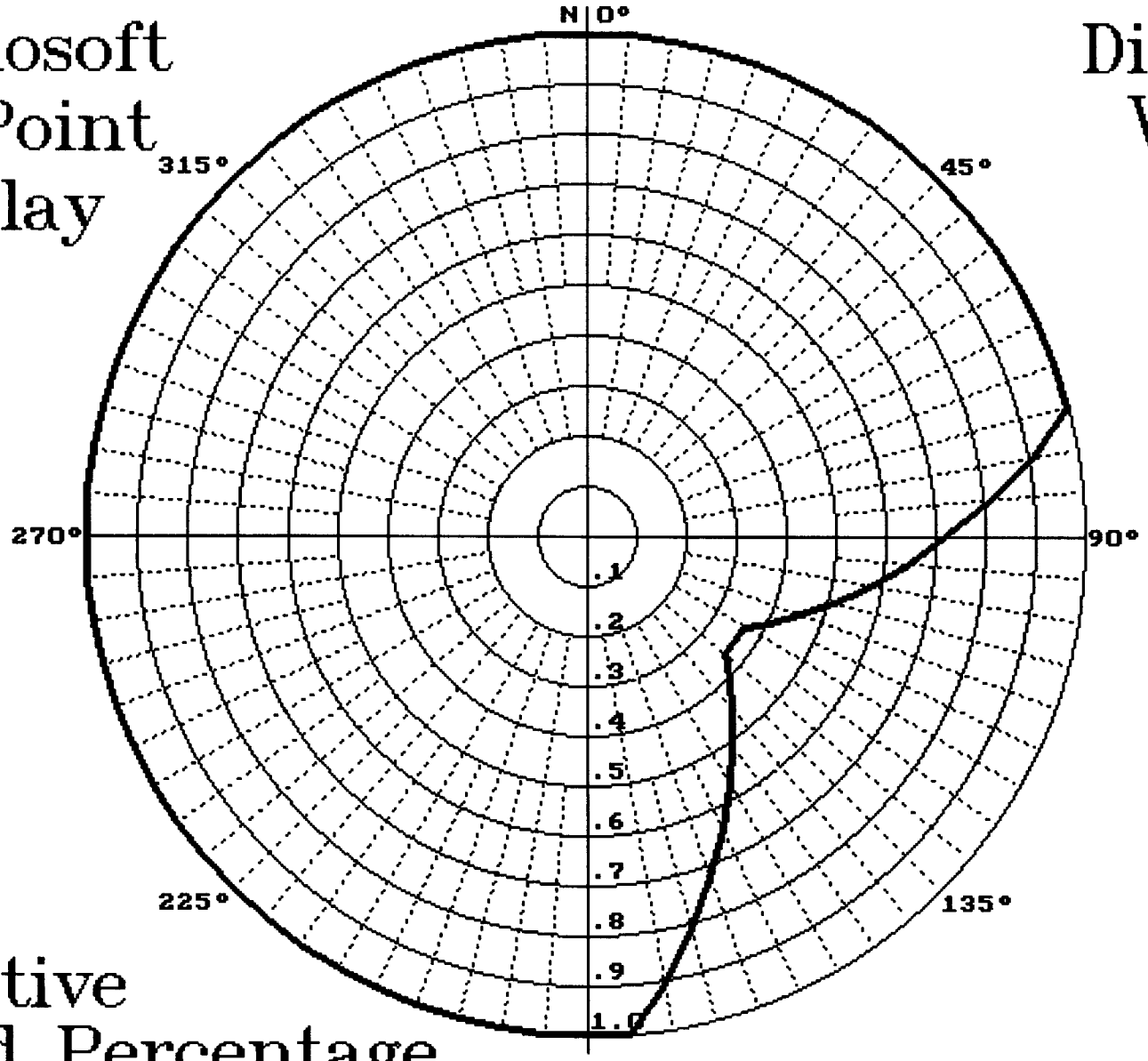
SHIVELY 6810 DIRECTIONAL

ANTENNA ORIENTATION: 0 Degrees

DEGREE	REL FIELD
.0	1.000
5.0	1.000
10.0	1.000
15.0	1.000
20.0	1.000
25.0	1.000
30.0	1.000
35.0	1.000
40.0	1.000
45.0	1.000
50.0	1.000
55.0	1.000
60.0	1.000
65.0	1.000
70.0	1.000
75.0	1.000
80.0	.911
85.0	.813
90.0	.725
95.0	.647
100.0	.577
105.0	.514
110.0	.459
115.0	.409
120.0	.365
125.0	.365
130.0	.365
135.0	.409
140.0	.459
145.0	.514
150.0	.577
155.0	.647
160.0	.725
165.0	.813
170.0	.911
175.0	1.000
180.0	1.000
185.0	1.000
190.0	1.000
195.0	1.000
200.0	1.000
205.0	1.000
210.0	1.000
215.0	1.000
220.0	1.000
225.0	1.000
230.0	1.000
235.0	1.000
240.0	1.000
245.0	1.000
250.0	1.000
255.0	1.000
260.0	1.000
265.0	1.000
270.0	1.000
275.0	1.000
280.0	1.000
285.0	1.000
290.0	1.000
295.0	1.000
300.0	1.000
305.0	1.000
310.0	1.000
315.0	1.000
320.0	1.000
325.0	1.000
330.0	1.000
335.0	1.000
340.0	1.000
345.0	1.000
350.0	1.000
355.0	1.000

Radiosoft
72 Point
Display

Dirpat
V 2.3



Relative
Field Percentage

EXHIBIT E3A

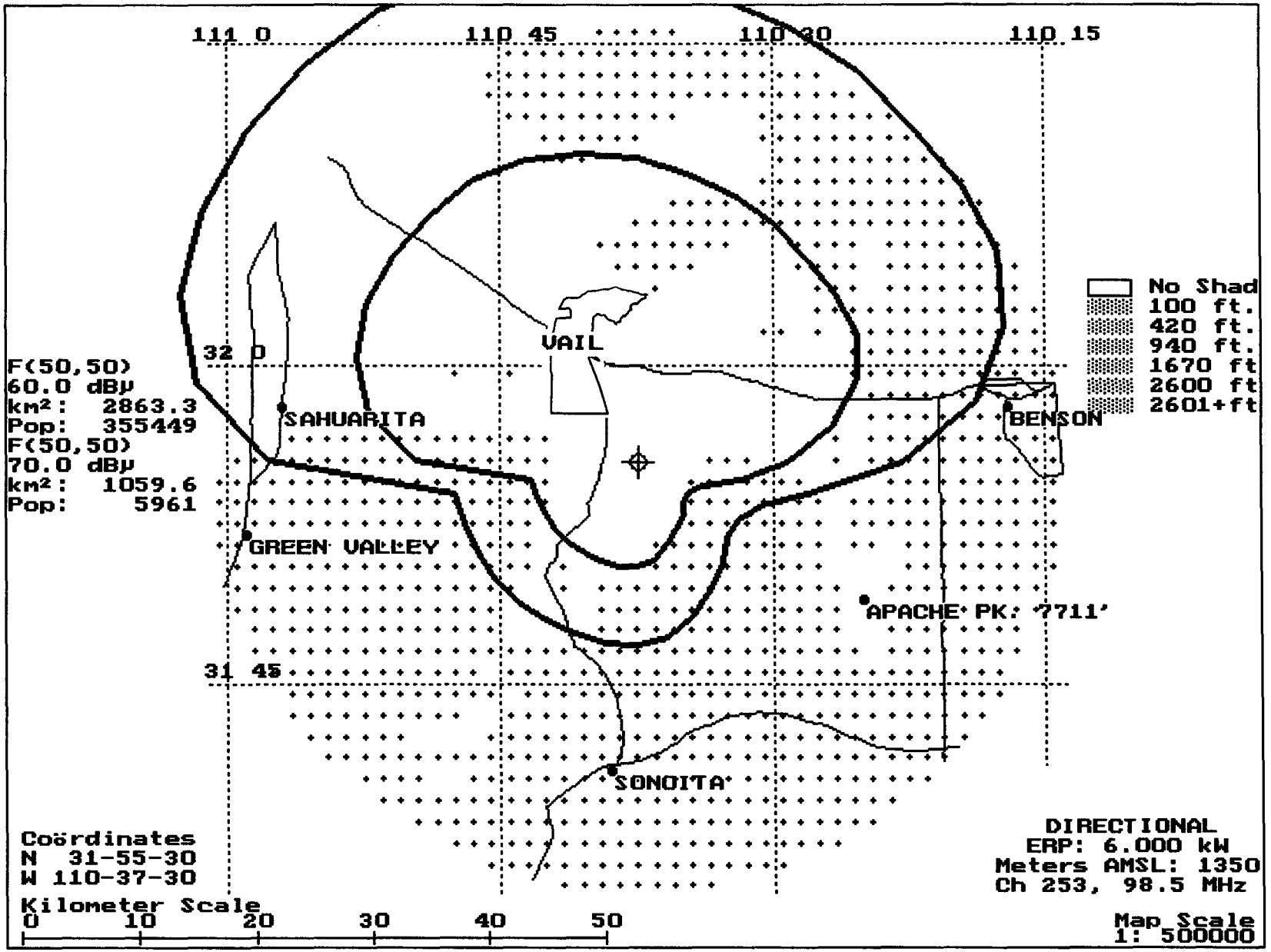

111 0
110 45
110 30
110 15
32 0
31 45
VAIL
SAHUARITA
BENSON
GREEN VALLEY
APACHE PK: 7711'
SONOITA
F(50,50)
60.0 dBµ
km²: 2863.3
Pop: 355449
F(50,50)
70.0 dBµ
km²: 1059.6
Pop: 5961
No Shad
100 ft.
420 ft.
940 ft.
1670 ft
2600 ft
2601+ft
Coördinates
N 31-55-30
W 110-37-30
Kilometer Scale
0 10 20 30 40 50
DIRECTIONAL
ERP: 6.000 kW
Meters AMSL: 1350
Ch 253, 98.5 MHz
Map Scale
1: 500000

EXHIBIT E4

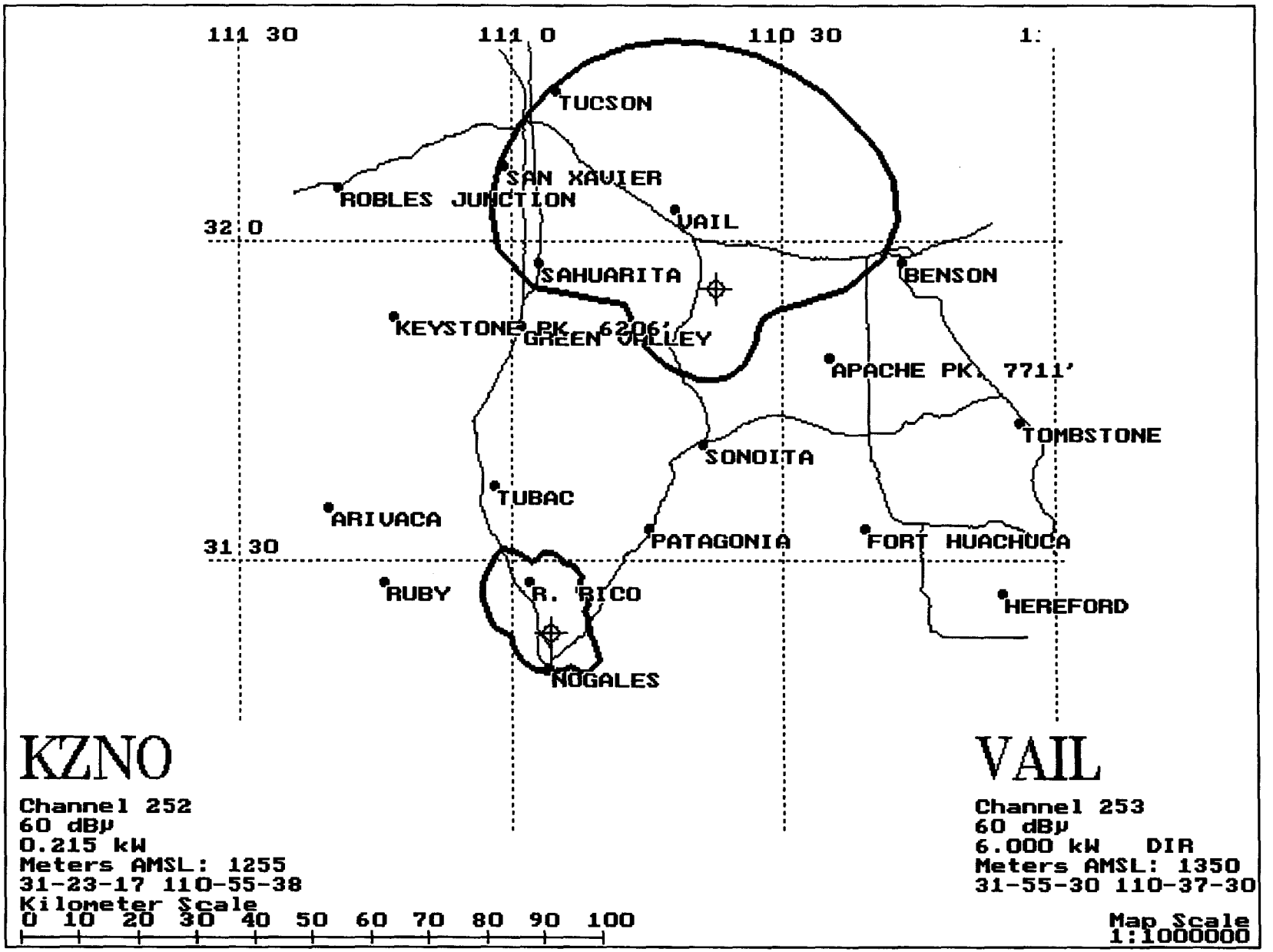

111 30
111 0
110 30
1:
TUCSON
SAN XAVIER
ROBLES JUNCTION
VAIL
32 0
SAHUARITA
BENSON
KEYSTONE PK 6206'
GREEN VALLEY
APACHE PK 7711'
TOMBSTONE
SONOITA
TUBAC
ARIVACA
31 30
PATAGONIA
FORT HUACHUCA
RUBY
R. RICO
HEREFORD
NOGALES
KZNO
Channel 252
60 dBµ
0.215 kW
Meters AMSL: 1255
31-23-17 110-55-38
Kilometer Scale
0 10 20 30 40 50 60 70 80 90 100
VAIL
Channel 253
60 dBµ
6.000 kW DIR
Meters AMSL: 1350
31-55-30 110-37-30
Map Scale
1:1000000

EXHIBIT E5

EXHIBIT E6

AVAILABLE BROADCAST SERVICES NOGALES, ARIZONA

A. FM Stations licensed to Nogales, Arizona
1. KOFH-FM Nogales, Arizona
2. KNOG-FM Nogales, Arizona

B. FM Translator Stations licensed to Nogales, Arizona
1. K219BU Nogales, Arizona

C. TV Stations providing primary service to Nogales, Arizona
1. KMSB-TV Tucson, Arizona (allocated to Nogales-Tucson)

D. FM Stations licensed to Nogales, Sonora within 10 km of Nogales, Arizona
1. XHSNFM Nogales, Sonora
2. XHNOSFM Nogales, Sonora
3. XHNIFM Nogales, Sonora
4. XHRZFM Nogales, Sonora
5. XHQTFM Nogales, Sonora
6. XHNGSFM Nogales, Sonora
7. XHESFM Nogales, Sonora

E. AM Stations licensed to Nogales, Sonora within 10 km of Nogales, Arizona
1. XECG-AM Nogales, Sonora
2. XEHF-AM Nogales, Sonora
3. XEHN-AM Nogales, Sonora
4. XENY-AM Nogales, Sonora
5. XEXW-AM Nogales, Sonora

F. FM Stations providing domestic 50 dBu contour over Nogales, Arizona
1. KWFM Tucson, Arizona
2. KRQQ Tucson, Arizona
3. KMXZ Tucson, Arizona
4. KIIM Tucson, Arizona
5. KHYT Tucson, Arizona

G. AM Stations providing domestic 1/mV groundwave contour over Nogales, Arizona
1. KNST Tucson, Arizona
2. KSAZ Marana, Arizona
3. KFLT Tucson, Arizona

EXHIBIT E7

ALLOCATION SITE
CONTOUR PROTECTION WITH MEXICO
KZNO CHANNEL 253A
VAIL, ARIZONA

PROPOSED FACILITY

COMMUNITY	: VAIL, ARIZONA	
CHANNEL	: 253	
CALL	: KZNO	
CLASS	: A	
INTERNATIONAL	: AA	
COORDINATES	: 31-55-30 110-37-30	
RADIATING CENTER	: 1350.0 METERS	
AZIMUTH TO PROTECTED FACILITY: 124.0 DEGREES		
STANDARD RADIALS	: 90.0	HAAT: 84.99 M
	: 135.0	HAAT: -18.28 M
INTERPOLATED	: 124.0	HAAT: 6.91 M (30 M USED)
RESTRICTED POWER	: 0.800 KW ON 124.0 DEGREE RADIAL	
INTERFERING CONTOUR	: 34 DBU (50,10)	
DISTANCE TO INTERFERING CONTOUR: 54.8 KM		

PROTECTED ALLOCATION AT AGUA PRIETA, SONORA, MEXICO

COMMUNITY	: AGUA PRIETA, SONORA
CHANNEL	: 253
CALL	: XHSAPF
CLASS	: B
COORDINATES	: 31-18-24 109-33-37
RADIATING CENTER	: 1423 M
MAXIMUM ERP	: 50 KW
RELATIONSHIP	: CO-CHANNEL
PROTECTED CONTOUR: 54 DBU (50,50)	
DISTANCE TO PROTECTED CONTOUR	: 65.0 KM (MAXIMUM)

SUMMARY

DISTANCE TO PROTECTED CONTOUR (XHSAPF)	: 65.0 KM
DISTANCE TO RESTRICTED CONTOUR(KZNO)	: 54.8 KM
TOTAL DISTANCE RESTRICTED PLUS PROTECTED:	119.8 KM
ACTUAL SPACING	: 122.0 KM

CLEARANCE 3.2 KM

NO OVERLAP OF PROTECTED AND INTERFERING CONTOUR

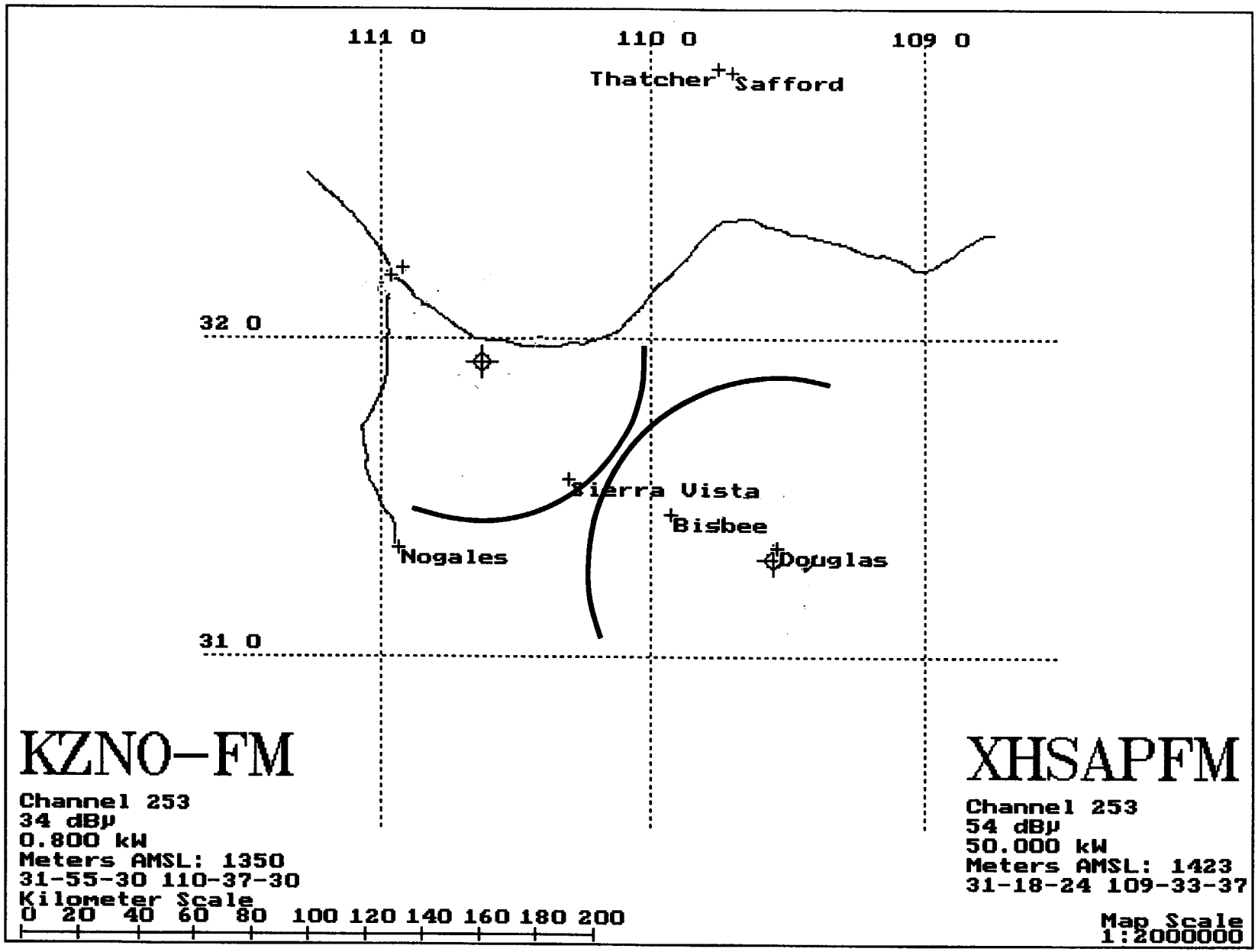

111 0
110 0
109 0
Thatcher
Safford
32 0
Sierra Vista
Bisbee
Nogales
Douglas
31 0
KZNO-FM
Channel 253
34 dBµ
0.800 kW
Meters AMSL: 1350
31-55-30 110-37-30
Kilometer Scale
0 20 40 60 80 100 120 140 160 180 200
XHSAPFM
Channel 253
54 dBµ
50.000 kW
Meters AMSL: 1423
31-18-24 109-33-37
Map Scale
1:2000000

EXHIBIT E7A

ENGINEER CERTIFICATION

I, Ted Tucker, do hereby certify that I personally prepared the foregoing technical analysis for KZNO and that I am qualified to do so.

My qualification as an FM engineer are a matter of record with the Commission. I have personally prepared and submitted nearly 100 applications, amendments, petitions, rulemaking proceedings, comments, replies, Special Temporary Authorizations, and other filings including domestic and international short spacing studies. I have personally installed and constructed numerous FM Stations, FM Translator Stations, Studio Transmitter Links, Low Power Televisions Stations and auxiliary transmitters. Many of these installations involved directional antenna systems.

I hold a valid General Class Radio Telephone License (formerly First Class) and have a Bachelor of Science degree from the University of Arizona.

Date: OCTOBER 22, 1999 By: Ted Tucker

Ted Tucker

EXHIBIT A